
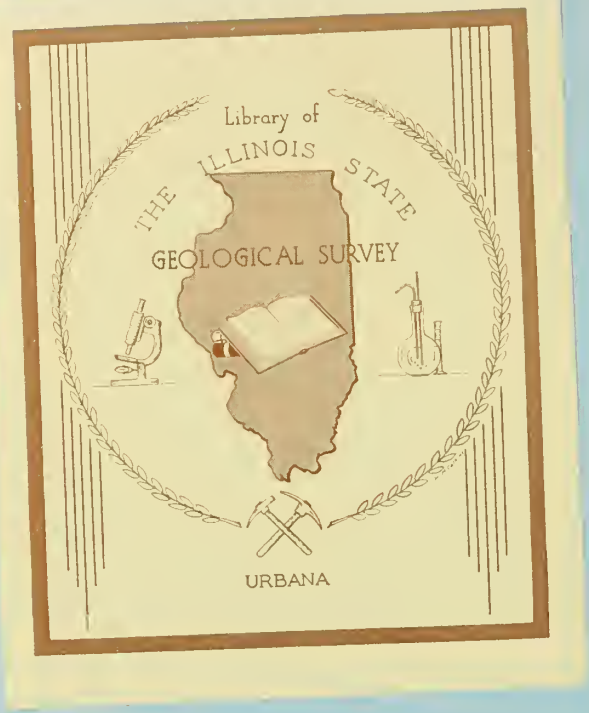


ILLINOIS STATE GEOLOGICAL SURVEY
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ANNOTATED SELECTED LIST OF
INDUSTRIAL MINERALS PUBLICATIONS

March 1, 1966

In addition to publications concerning industrial minerals, the Illinois Geological Survey has available for reference a considerable volume of information, including many well logs, pertaining to industrial mineral resources. Out-of-print publications (*) may be consulted at the Survey library and in other libraries; some may be borrowed for limited periods. Members of the Survey staff will confer with visitors on questions regarding mineral resources and their uses.

Single copies of the reports listed below that are not out of print are available free of charge. The report series are abbreviated as follows: Bull.—Bulletin, Circ.—Circular, Ed. Ser.—Educational Series, I. M. Notes—Industrial Minerals Notes, Min. Ec. Brief—Mineral Economics Brief, Min. Inv.—Mining Investigations, Ill. Pet.—Illinois Petroleum, and R. I.—Report of Investigations.

MAPS

Mineral Industries of Illinois, January 1, 1961.

LIMESTONE AND DOLOMITE

- Bull. 17. Portland-Cement Resources of Illinois. 121 p., 19 pls., 1912.
Raw materials in selected areas; cement manufacture.
- Bull. 46. Limestone Resources of Illinois. 392 p., 70 figs., 1925.
Resources by counties; chemical analyses and physical tests.
- *Bull. 61. Rock Wool from Illinois Mineral Resources. 262 p., 34 figs., 1934.
Occurrence of suitable materials, chemistry of rock wool production, and economic factors influencing the Illinois market.
- Bull. 68-B. Resistance of Chicago Area Dolomites to Freezing and Thawing.
p. 249-262, 14 figs., 1944.
- R. I. 8. Preliminary Report on the Economic Mineral Resources of Calhoun County. 21 p., 3 figs., 1926.
Deals especially with limestone, shale, and sandstone.
- R. I. 12. Limestone for Sewage Filter Beds—Causes of Disintegration, Desirable Properties, and Methods of Testing. 21 p., 5 figs., 1927.
- R. I. 17. The Limestone Resources of the Pontiac-Fairbury Region. 27 p., 7 figs., 1929.
- R. I. 23. High-Calcium Limestone near Morris, Illinois. 26 p., 4 figs., 1931.
(See also Supplement, Circular 4.)
- *R. I. 49. A Summary of the Uses of Limestone and Dolomite. 50 p., 1938.
(See Circular 321.)

1. The following information is being furnished to you for your information only. It is not to be disseminated outside your organization.

2. This information is classified "TOP SECRET" because its disclosure could result in the identification of sources and methods of the intelligence community.

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11. This information is classified "TOP SECRET" because its disclosure could result in the identification of sources and methods of the intelligence community.

12. This information is classified "TOP SECRET" because its disclosure could result in the identification of sources and methods of the intelligence community.

- R. I. 65. Agricultural Limestone Resources of Cumberland, Effingham, Clay, Richland, and Jasper Counties. 44 p., 8 figs., 12 tables, 1940.
- R. I. 90. High-Purity Dolomite in Illinois. 89 p., 34 figs., 1943.
Deposits in the Chicago, Kankakee, Rockford, Savanna, Port Byron, and Grafton-Hardin regions; chemical analyses.
- *R. I. 164. Water Soluble Salts in Limestones and Dolomites. 16 p., 1 fig., 7 tables, 1953.
Fluid inclusions in Illinois limestones and dolomites and their probable composition.
- R. I. 184. Illinois Building Stones. 25 p., 12 figs., 1955.
Limestone, dolomite, marble, and sandstone.
- R. I. 195. Preliminary Report on Portland Cement Materials in Illinois. 34 p., 3 figs., 1956.
Limestone, shale, and clay resources; chemical analyses.
- R. I. 200. Chemical Analyses of Illinois Limestones and Dolomites. 33 p., 2 tables, 1957.
670 analyses from 43 counties.
- R. I. 211. Limestone Resources of Extreme Southern Illinois. 81 p., 8 pls., 4 figs., 7 tables, 1959.
Resources by county and by geological formation; chemical analyses and physical tests.
- *Circ. 4. Results of Test-Drilling of Limestone Near Morris, Illinois. 6 p., 1933.
- *Circ. 94. Agricultural Limestone Resources of Illinois—Their Character and Occurrence and Methods of Examination. 33 p., 7 figs., 1943.
- *Circ. 156. Acid Etching in the Study of Limestones and Dolomites. 47 p., 22 figs., 1950.
A means of studying the texture and impurities in relation to utilization.
- *Circ. 157. Short Papers on Geologic Subjects: (4) Physical Characteristics of the Oolite Grains of the Ste. Genevieve Formation. p. 116-119, 1950.
- *Circ. 170. Short Papers on Geologic Subjects: (2) Petrology of the Basal High-Purity Bed of the Burlington Limestone. p. 160-164, 1951.
- *Circ. 179. Short Papers on Geologic Subjects: Barite in the LaSalle Limestone of Illinois. p. 126-128, 3 figs., 1952.
Chiefly of significance to mineralogists or collectors.
- Circ. 221. Sampling Limestone and Dolomite Deposits for Trace and Minor Elements. 18 p., 5 figs., 1956.
- Circ. 230. Subsurface Dolomite and Limestone Resources of Grundy and Kendall Counties. 25 p., 7 figs., 1957.

- Circ. 243. Trace Elements in Illinois Pennsylvanian Limestones. 34 p., 4 figs., 5 tables, 1957.
Data on boron, barium, chromium, copper, iron, potassium, manganese, molybdenum, sodium, nickel, lead, strontium, titanium, vanadium, and zinc.
- Circ. 261. Some Plastic Properties of Pastes Made from Hydrated Dolomitic and High-Calcium Limes. 9 p., 2 pls., 3 figs., 7 tables, 1958.
- Circ. 270. Effects of Hydration Procedures and Calcination in the Presence of NaCl on the Properties of Lime Hydrates. 33 p., 1 pl., 20 figs., 10 tables, 1959.
- Circ. 284. Salem Limestone in Southwestern Illinois. 32 p., 3 pls., 6 figs., 1960.
Resources in Mississippi Bluff area; textural details, stratigraphy, and chemical analyses.
- Circ. 321. Uses of Limestone and Dolomite. 41 p., 2 tables, index, 1961.
(Reprinted with addenda 1965.)
75 uses described; extensive bibliography.
- Circ. 345. Impact Resistance of Illinois Limestones and Dolomites. 20 p., 9 figs., 5 tables, 1963.
Laboratory tests with falling weight.
- Circ. 346. Limestone Resources of the Lower Kaskaskia Valley. 22 p., 1 pl., 2 figs., 3 tables, 1963.
Resources, chemical analyses and physical tests.
- Circ. 370. Mississippian Limestone Resources of Fulton, McDonough, and Schuyler Counties, Illinois. 27 p., 5 figs., 8 tables, app., 1964.
Resources, chemical analyses, and physical tests.
- Circ. 379. Dolomite Resources of Boone and DeKalb Counties. 22 p., 5 figs., 3 tables, 1965.
Resources, depth to unexposed deposits, and chemical analyses.
- Circ. 390. Limestone Resources of Madison County, Illinois. 39 p., 1 pl., 6 figs., 2 tables, 1965.
Resources, geologic map, stratigraphy, underground mining, and chemical analyses.
- I. M. Notes 4. Subsurface Dolomite in Lake, McHenry, and part of Northwestern Cook Counties. 7 p., 1956.
Data from well records.
- I. M. Notes 5. Possibilities for Calcitic Limestone Underground in Kankakee and Iroquois Counties. p. 6-9, 1957.
Data from well records.
- I. M. Notes 10. Recent Price and Cost Trends Relating to Stone, Sand, and Gravel Production in Illinois. 4 p., 1955.
- I. M. Notes 14. Illinois Stone Production in 1959. 4 p., 1 table, 1 map, 1961.

- *I. M. Notes 15. Black and Brown Terrazzo Chips from Southern Illinois Limestones. 7 p., 1962.
- I. M. Notes 20. Chemical Composition of Some Deep Limestones and Dolomites in Livingston County, Illinois. 5 p., 2 tables, 1964.
- I. M. Notes 23. Limestone Resources of Jefferson and Marion Counties, Illinois. 15 p., 3 figs., 2 tables, app., 1965.
Resources; chemical analyses.
- I. M. Notes 24. Thermal Expansion of Certain Illinois Limestones. 6 p., 1 fig., 1 table, 1966.
Expansion in range -4° to 140° F.
- Min. Ec. Brief 1. Directory of Illinois Limestone and Dolomite Producers. 21 p., July 1961.
- Reprint. Petrology of the Fredonia Oolite in Illinois: Am. Assoc. Petroleum Geologists Bull., v. 34, no. 12, p. 2318-2336, 19 figs., 2 tables, Dec. 1950. Separates available.
- *Reprint 1956-G. Properties of Calcium and Magnesium Carbonates and Their Bearing on Some Uses of Carbonate Rocks. 73 p., 1 table, 1955.
Extensive bibliography.

SAND AND GRAVEL

- Bull. 50. Natural-Bonded Molding Sand Resources of Illinois. 183 p., 50 figs., 1925.
Resources in 40 counties; sieve, bond strength, permeability, and other tests.
- Bull. 53. Geology and Economic Resources of the St. Peter Sandstone in Illinois. 175 p., 3 pls., 43 figs., 15 tables, 1928.
Resources, distribution, mineralogy, sieve tests, and uses; silica sand.
- Bull. 66. Geology and Mineral Resources of the Marseilles, Ottawa, and Streator Quadrangles. p. 234-243, 1 fig., 1942.
Resources, distribution, chemical analyses, and uses of St. Peter Sandstone (source of silica sand).
- *R. I. 57. Fine-Grained Molding Sand Resources of Northern Illinois: A Preliminary Investigation. 53 p., 5 figs., 1939.
Sand for non-ferrous and gray iron castings, especially in Cook, Henry, Jo Daviess, Mason, and Whiteside Counties; sieve tests.
- *R. I. 79. Feldspar in Illinois Sands—A Study of Resources. 87 p., 13 figs., 1942.
Occurrence of sands, feldspar content, and sieve tests.
- *Circ. 3. Preliminary Report on the Sand and Gravel Resources of the Buda Quadrangle. 8 p., 1 fig., 1932.

- *Circ. 100. Early Ordovician Strata Along Fox River in Northern Illinois. 11 p., 4 figs., 1943.
Data on silica sand deposits.
- *Circ. 179. Notes on the Illinois "Lafayette" Gravel. p. 95-108, 10 figs., 1952.
Particle size, pebble counts, shape, roundness, polish, and fossils.
- Circ. 184. Sands and Silts of Extreme Southern Illinois: A Preliminary Report. 28 p., 1 fig., 5 tables, 1952.
Deposits, chemical composition, and sieve tests.
- *Circ. 294. Sand and Gravel Resources of Champaign County, Illinois. 15 p., 1 pl., 2 figs., 2 tables, 1960.
- Circ. 299. Sand and Gravel Resources of Kane County, Illinois. 11 p., 1 map pl., 1 fig., 5 tables, 1960.
- Circ. 335. Silica Brick from Northern Illinois Silica Sand. 18 p., 6 figs., 7 tables, 1962.
Calcium and aluminum phosphates used as binders.
- Circ. 336. Sand and Gravel Resources of McHenry County, Illinois. 15 p., 1 pl., 1 fig., 4 tables, 1962.
Deposits; sieve tests.
- Circ. 359. Sand and Gravel Resources of Northeastern Illinois. 8 p., 1 map pl., 2 figs., 1964.
Covers greater Chicago area.
- Circ. 367. Sand and Gravel Resources of DeKalb County. 16 p., 1 map pl., 1 fig., 4 tables, 1964.
Deposits; sieve tests.
- Circ. 381. Sand and Gravel Resources of Peoria County. 16 p., 1 map pl., 1 fig., 4 tables, 1965.
Deposits; sieve tests.
- Circ. 391. Feldspar in Illinois Sands: A Further Study. 16 p., 1 pl., 2 figs., 4 tables, 1965.
- Circ. Sand and Gravel Resources of Tazewell County. In preparation.
- Circ. Heavy Minerals in Sands Along the Wabash River. In preparation.
- I. M. Notes 1. Heavy Minerals in Illinois Glacial Sands. p. 2-3, 1954.
- *I. M. Notes 3. Trace Elements and Potash in Some Illinois Gravels. p. 2-5, 4 tables, 1956.
- I. M. Notes 8. Origin of Illinois Sand and Gravel Deposits. 9 p., 1958.
A popular account.
- I. M. Notes 10. Recent Price and Cost Trends Relating to Stone, Sand, and Gravel Production in Illinois. 4 p., 1959.

PROCEEDINGS OF THE CONFERENCE ON THE HISTORY OF THE UNITED STATES

CONFERENCE ON THE HISTORY OF THE UNITED STATES

The conference was held at the University of California, San Diego, from October 10 to 14, 1967. The theme of the conference was "The American West: A Re-examination".

The conference was organized by the American Historical Association and the University of California, San Diego. The speakers included:

- Dr. H. R. Hays, University of California, San Diego
- Dr. J. H. Stover, University of California, San Diego
- Dr. R. M. Jensen, University of California, San Diego
- Dr. G. R. Owen, University of California, San Diego
- Dr. J. W. Ward, University of California, San Diego

The conference was held in the University of California, San Diego, and was attended by approximately 100 participants. The proceedings of the conference are published in the following volume:

Proceedings of the Conference on the History of the United States, University of California Press, 1968.

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The conference was held in the University of California, San Diego, and was attended by approximately 100 participants. The proceedings of the conference are published in the following volume:

Min. Ec. Brief 6. Directory of Illinois Sand and Gravel Producers. 21 p.,
April 1963.

SILICA SAND

- Bull. 53. Geology and Economic Resources of the St. Peter Sandstone in Illinois. 175 p., 3 pls., 43 figs., 15 tables, 1928.
Resources, distribution, mineralogy, sieve tests, and uses; silica sand.
- *Bull. 37. Geology and Mineral Resources of the Hennepin and LaSalle Quadrangles. 136 p., 6 pls., 36 figs., 1919.
Information on silica sand deposits.
- Bull. 49. Geology and Mineral Resources of the Dixon Quadrangle. 141 p., 5 pls., 20 figs., 1926.
Information on silica sand deposits.
- Bull. 66. Geology and Mineral Resources of the Marseilles, Ottawa, and Streator Quadrangles. 175 p., 3 pls., 43 figs., 15 tables, 1942.
Resources, distribution, chemical analyses, and uses of St. Peter Sandstone (source of silica sand).
- *Circ. 100. Early Ordovician Strata Along Fox River in Northern Illinois. 11 p., 4 figs., 1943.
Data on silica sand deposits.
- Circ. 335. Silica Brick from Northern Illinois Silica Sand. 18 p., 6 figs., 7 tables, 1962.
Calcium and aluminum phosphates used as binders.
- Min. Ec. Brief 8. Directory of Illinois Mineral Producers. 10 p., June 1964.

MOLDING SAND

- Bull. 50. Natural-Bonded Molding Sand Resources of Illinois. 183 p., 50 figs., 1925.
Resources in 40 counties; sieve, bond strength, permeability, and other tests.
- Bull. 53. Geology and Economic Resources of the St. Peter Sandstone in Illinois. 175 p., 3 pls., 43 figs., 15 tables, 1928.
Resources, distribution, mineralogy, sieve tests, and uses; silica sand.
- Bull. 66. Geology and Mineral Resources of the Marseilles, Ottawa, and Streator Quadrangles. p. 234-243, 1 fig., 1942.
Resources, distribution, chemical analyses, and uses of St. Peter Sandstone (source of silica sand).
- *R. I. 57. Fine-Grained Molding Sand Resources of Northern Illinois. 53 p., 5 figs., 1939.
Sand for non-ferrous and gray iron castings, especially in Cook, Henry, Jo Daviess, Mason, and Whiteside Counties; sieve tests.

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Min. Ec. Brief 8. Directory of Illinois Mineral Producers. 10 p., June 1964.

CLAY AND SHALE

- *Bull. 4. Preliminary Investigation of Illinois Fire Clays. p. 129-175, 1907.
Resources, especially in extreme southern Illinois; chemical analyses and pyrometric tests.
- Bull. 9. Paving Brick and Paving-Brick Clays of Illinois. 318 p., 3 pls., 33 figs., 1908.
Clay deposits, qualities of clays and bricks, and brick pavements.
- Bull. 17. Portland-Cement Resources of Illinois. 121 p., 19 pls., 1912.
Raw materials including clays in selected areas; cement manufacture.
- Bull. 30. Pennsylvanian Fireclays of Illinois, p. 61-73; Loess in the Canton Quadrangle, p. 109-114, 1917.
- Bull. 38D. Further Investigations of Illinois Fire-Clays. 149 p., 14 figs., 1921.
Deposits in 20 counties; methods of testing; ceramic tests.
- *Bull. 38F. Notes on Illinois Bituminous Shales, Including Results of Their Experimental Distillation. 19 p., 4 figs., 1922.
Occurrences in 8 counties; distillation tests.
- Bull. 69. Amenability of Various Types of Clay Minerals to Alumina Extraction by the Lime Sinter and Lime-Soda Sinter Processes. 77 p., 24 figs., 12 tables, 1945.
- Min. Inv. 18. Tests on Clay Materials Available in Illinois Coal Mines. 130 p., 62 figs., 1917.
Burning tests on 106 samples from 20 counties.
- R. I. 8. Preliminary Report on the Economic Mineral Resources of Calhoun County. 21 p., 3 figs., 1926.
Data on shale, clay, and other materials.
- R. I. 15. Preliminary Report on the Fuller's Earth Deposits of Pulaski County. 31 p., 8 figs., 1928.
Deposits in Pulaski, Massac, and Alexander Counties; specific volume and apparent acidity tests.
- R. I. 22. Refractory Clays in Calhoun and Pike Counties, Illinois. 43 p., 6 figs., 1931.
Deposits; ceramic tests on 22 samples.
- *R. I. 26. Petrology of the Fuller's Earth Deposits, at Olmsted, Illinois, with a Brief Study of Some Non-Illinois Earths. 19 p., 15 figs., 1933.
Occurrence; mineral composition of fuller's earth at Olmsted; petrographic data on 14 other earths.

- *R. I. 27. Anna "Kaolin" as a New Decolorizing Agent for Edible Oils. 42 p., 7 figs., 1933.
Decolorization; rate of filtration; oil retained by earth.
- *R. I. 53. A Unique Clay from the Goose Lake, Illinois, Area. 20 p., 4 figs., 1939.
Occurrence, constitution, properties, and uses.
- *R. I. 64. Tests of Face Brick from Illinois and Other States. 32 p., 5 figs., 1940.
Tests on Illinois, Ohio, Indiana, and Pennsylvania brick.
- R. I. 100. Illinois Clays and Shales as Mortar Mix. 55 p., 12 figs., 20 tables, 1944.
- R. I. 102. The Bonding Action of Clays. Part 1—Clays in Green Molding Sands. 55 p., 20 figs., 8 tables, 1945.
- R. I. 104. Illinois Surface Clays as Bonding Clays for Molding Sands—An Exploratory Study. 41 p., 3 figs., 11 tables, 1945.
Tests on till, gumbotil, lake clays, residual clays, and others.
- R. I. 110. The Bonding Action of Clays. Part II—Clays in Dry Molding Sands. 36 p., 17 figs., 4 tables, 1946.
- R. I. 128. Clay and Shale Resources of Extreme Southern Illinois. 107 p., 8 figs., 2 tables, 1948.
Deposits; more than 50 ceramic tests; 32 chemical analyses.
- R. I. 202. Vanadium Efflorescence and Its Control by the Use of Fluorspar. 29 p., 11 figs., 10 tables, 1957.
- R. I. 203. Petrology of Paleozoic Shales of Illinois. 35 p., 5 figs., 5 tables, 1957.
Mineral and chemical composition, differential thermal analyses, optical properties, and other data.
- R. I. 208. Water Sorption Properties of Homoionic Clay Minerals. 46 p., 16 figs., 4 tables, 1958.
Data on 7 groups of clay minerals.
- Circ. 39. Gumbotil as a Potential Source of Rotary Drilling Mud, Bonding Clay, and Bleaching Clay. 23 p., 4 figs., 1938.
- Circ. 83. Halloysite Clay in Illinois. 3 p., 1942.
Deposit in Pope County.
- Circ. 162. Olmsted Fuller's Earth as a Bonding Clay for Foundry Use. 5 p., 1950.
- Circ. 168. Reactions Accompanying the Firing of Brick. 6 p., 4 figs., 2 tables, 1951.
- Circ. 188. Ceramic Materials from Magnesium-Treated Clays. p. 165-168, 1954.

- Circ. 208. Illinois Oil Shales. 22 p., 2 figs., 6 tables, 1956.
Oil content and other data on 120 samples.
- Circ. 233. Pottery Clay Resources of Illinois. 8 p., 2 figs., 1957.
Preliminary tests; general distribution.
- Circ. 266. Water Sorption Characteristics of Clay Minerals. 20 p., 22 figs., 1959.
Data on kaolinite, illite, chlorite, and montmorillonite.
- Circ. 277. Light-Burning Clay Resources in LaSalle County, Illinois. 27 p., 3 figs., 1959.
Deposits, firing, and bonding tests.
- Circ. 282. Chemical and Spectrochemical Analyses of Illinois Clay Materials. 55 p., 2 tables, 1959.
Over 500 analyses.
- Circ. 290. Lightweight Aggregate from Illinois Shales. 34 p., 2 pls., 2 figs., 1960.
Mineral and chemical composition; causes of bloating; tests on 76 samples.
- Circ. 302. Lower Pennsylvanian Clay Resources of Knox County, Illinois. 19 p., 1 pl., 39 tables, 1960.
Ceramic and bonding tests on 39 samples.
- Circ. 303. Ceramic Tests of Illinois Clays and Shales. 72 p., 1 fig., 1960.
More than 125 tests of samples from 59 counties.
- Circ. 307. Chemical Evaluation of Illinois Oil Shales. 22 p., 3 figs., 11 tables, 1960.
Detailed study of chemical and physical characteristics of products produced by the retorting of 5 samples.
- Circ. 322. Lower Pennsylvanian Clay Resources of Rock Island, Mercer, and Henry Counties, Illinois. 40 p., 1 fig., 1961.
Ceramic and bonding tests on 95 samples.
- Circ. 334. Stratigraphy and Mineralogy of the Wisconsinan Loesses of Illinois. 55 p., 3 figs., 6 tables, 15 geol. secs., 1962.
- Circ. 347. Mineralogy of Glacial Till and Their Weathering Profiles in Illinois. Part I—Glacial Till. 55 p., 9 figs., 6 tables, 8 geol. secs., 1963.
- Circ. 352. Buff-Burning Clay Resources of Southwestern and Southern Illinois. 24 p., 4 figs., 3 tables, 3 app., 1963.
Ceramic and bonding properties of 66 samples.
- Circ. 353. Buff-Burning Clay Resources of Western Illinois. 23 p., 3 figs., 1 table, app., 1963.
Ceramic and bonding properties of 110 samples.
- Circ. 371. Illinois Clay Resources for Lightweight Ceramic Blocks. 15 p., 5 figs., 1 table, 1964.
Tests of 7 shales and clay as bonding material for lightweight shale aggregate.

- I. M. Notes 2. Lightweight Brick from Clay and Peat or Shredded Corn Cobs.
p. 3-4, 1955.
- *I. M. Notes 9. Shales as Source Material for Synthetic Lightweight Aggregate.
5 p., 1959.
- *I. M. Notes 11. Rare Earth and Trace Element Content of Unusual Clay on Hicks
Dome in Hardin County, Illinois. 6 p., 1 fig., 3 tables, 1960.
- *I. M. Notes 12. A Survey of Some Illinois Materials Possibly Useful as Pozzolans.
6 p., 1 table, 1961.
Tests of 12 clays, 4 shales, and 2 silicas.
- I. M. Notes 16. Refractory Clay Resources of Illinois. 4 p., 1 fig., 1962.
A general discussion.
- I. M. Notes 18. Permanent Expansion in Bricks. 5 p., 4 figs., 1964.
Tests of Illinois brick showed expansion not acute.
- I. M. Notes 22. Illinois Clays as Binders for Iron Ore Pellets. 4 p., 4 tables,
1965.
Tests of 7 clays showed promise.
- Min. Ec. Brief 8. Directory of Illinois Mineral Producers. 10 p., June 1964.
- Reprint 1956-E. Clay Mineralogy of Some Basal Pennsylvanian Sandstones, Clays,
and Shales. 5 p., 4 figs., 1956.
- Reprint 1956-R. Underclay Squeezes in Coal Mines. 4 p., 1956.
Clay mineralogy in squeeze and nonsqueeze areas.
- Reprint 1957-L. Controlling Vanadium Efflorescence. 2 p., 1957.
A use for fluorspar.
- Reprint 1958-BB. Itinerary of Field Trip for Fifth National Clay Conference,
October 8, 1956. 3 p., 1958.
Describes 3 soil profiles; exposure of Fithian illite.
- *Reprint 1958-CC. Clay Mineralogy of Pennsylvanian Sediments in Southern Illinois.
15 p., 6 figs., 1 table, 1958.
Environment of deposition and clay mineralogy.
- Reprint 1959-K. Clay Mineralogy as Applied to Secondary Recovery Problems.
4 p., 7 figs., 1959.
- Reprint 1961-O. A Clay Mineral Sequence at the Mississippian-Pennsylvanian
Unconformity in the Illinois Basin. 10 p., 6 figs., 1961.
- Reprint 1963-L. Contact Temperature of a Peridotite Dike with Pennsylvanian
Shale Determined by Clay Mineral Alterations. 8 p., 5 figs.,
1 table, 1963.
Indicates temperature of 525-550° C.
- Reprint 1965-R. Clay Materials and Structural Clay Products. 6 p., 1965.
Mineralogy, chemical composition, organic matter, and
chemical properties.

SILICA, GANISTER, NOVACULITE, AND CALICO ROCK IN SOUTHERN ILLINOIS

- Bull. 14. Artificial Silicates with Reference to Amorphous Silica. p. 276-293, 11 tables, 1909.
Sand-lime brick from southern Illinois silica.
- R. I. 24. Progress Report on the Study of Southern Illinois Silica as a Pottery Material. 7 p., 1932.
- R. I. 47. Decolorization of Southern Illinois Silica. 35 p., 14 figs., 1937.
Methods, costs, efficiency, corrosion problems.
- R. I. 117. Southern Illinois Novaculite and Gravel for Making Silica Refractories. 55 p., 29 figs., 1946.
Materials offer promise when crushed, properly graded, bonded, and fired.
- R. I. 166. Siliceous Materials of Extreme Southern Illinois. 39 p., 17 figs., 11 tables, 1953.
Silica (tripoli), novaculite, novaculite gravel, ganister, calico rock, and shale and chert gravels; deposits, occurrence, character, composition, and uses.
- *I. M. Notes 12. A Survey of Some Illinois Materials Possibly Useful as Pozzolans. 6 p., 1 table, 1961.
Tests of 12 clays, 4 shales, and 2 silicas.

SANDSTONE

- Bull. 53. Geology and Economic Resources of the St. Peter Sandstone in Illinois. 175 p., 3 pls., 43 figs., 15 tables, 1928.
Resources, distribution, mineralogy, sieve tests, and uses.
- R. I. 188. Sandstone Resources of Extreme Southern Illinois—A Preliminary Report. 21 p., 2 pls., 2 figs., 7 tables, 1955.
Sieve tests of 65 samples from 30 outcrops; 18 chemical analyses; uses.
- Circ. 331. Chemical and Physical Character of the Pennsylvanian Sandstones in Central Illinois. 43 p., 5 figs., 11 tables, 1962.
Deposits, 90 sieve tests, 71 chemical analyses, heavy minerals, clay minerals, and fusion tests.
- I. M. Notes 1. Potash Feldspar in the Glenwood Formation Near Oregon. p. 1-2, 1954.

CHERT

- Circ. 245. Petrography and Origin of Illinois Nodular Cherts. 25 p., 2 figs., 2 pls., 2 tables, 1957.
Cherts are epigenetic concretions.

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IGNEOUS ROCKS

- R. I. 197. Igneous Intrusive Rocks in Illinois and Their Economic Significance. 19 p., 6 pls., 1 fig., 1 table, 1956.
Dikes and sills and their relation to coal and fluorspar.
- Circ. 330. Trace Elements, Rare Earths, and Chemical Composition of Southern Illinois Igneous Rocks. 12 p., 1 fig., 4 tables, 1962.
Data on 16 samples.
- Circ. 382. The Precambrian Basement of Illinois. 13 p., 3 figs., 2 tables, 1965.
Nature of surface, petrography, relations, and ages of basement rocks.

GYPSUM AND ANHYDRITE

- Circ. 226. Gypsum and Anhydrite in Illinois. 26 p., 7 figs., app., 1957.
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- *Bull. 41. Geology of Hardin County and the Adjoining Part of Pope County. 416 p., 17 pls., 30 figs., 1 map, 1920.
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- Bull. 59. The Fluorspar Industry of the United States with Special Reference to the Illinois-Kentucky District. 128 p., 14 figs., 39 tables, 1938.
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- *Circ. 296. Illinois Fluorspar. 36 p., 1 pl., 6 figs., 4 tables, 1960. Revision in process.
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- Circ. 385. Areal Geology of the Illinois Fluorspar District. Part II—Karbers Ridge and Rosiclare Quadrangles. 40 p., 2 pls., 3 figs., 1 table, 1965.
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- I. M. Notes 7. Outlying Occurrences of Galena, Sphalerite, and Fluorite in Illinois. 5 p., 1957.
Occurrences near Alto Pass and Anna in Hancock and Kendall Counties.
- I. M. Notes 17. Pelletizing Illinois Fluorspar. 3 p., 1963.
Purpose, physical tests, and commercial production.
- Reprint 1963-N. Experimental Replacement of Oolitic Limestone by Fluorite. 2 p., 1963.
- I. M. Notes 26. Binders for Fluorspar Pellets. In preparation.

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- Circ. 265. Barite in the Southern Illinois Fluorspar District. 14 p., 1 fig., 1 table, 1959.
Occurrence, distribution, and uses.
- Circ. 179. Short Papers on Geologic Studies: Barite in LaSalle Limestone of Illinois. p. 126-128, 3 figs., 1952.
Chiefly of significance to mineralogists or collectors.

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ZINC AND LEAD IN NORTHWESTERN ILLINOIS

- *Bull. 21. Lead and Zinc Deposits of Northwestern Illinois. 12 p., 22 pls., 13 figs., 1914.
Geology, ore deposits, mines, and prospects.
- *Bull. 26. Geology and Geography of the Galena and Elizabeth Quadrangles. 233 p., 25 pls., 50 figs., 1916.
Geology, mineral resources, and development of Jo Davies County, including history of mining.
- *R. I. 116. Geological Aspects of Prospecting and Areas for Prospecting in the Zinc-Lead District of Northwestern Illinois. 48 p., 2 pls., 7 figs., 1946.
Includes descriptions of many mining properties.
- R. I. 124. Geological Structure of the Zinc-Lead District of Northwestern Illinois. 15 p., 7 pls., 1947.
- R. I. 179. Geochemical Prospecting in the Northwestern Illinois Zinc-Lead District. 11 p., 2 figs., 1955.
Tests of soils by dithizone method.
- R. I. 210. Crevice Lead-Zinc Deposits of Northwestern Illinois. 49 p., 6 pls., 11 figs., app., 1959.
Character, distribution, mineralogy, origin, mines, and future possibilities.
- Circ. 214. Geologic Structure Map of Northwestern Illinois Zinc-Lead District. 7 p., 1 pl., 3 figs., 1956.
Map on scale of 2 inches to the mile.
- I. M. Notes 5. Relation of Sulfate and Chloride to Ore Deposits in the Ordovician Rocks of Jo Daviess County. 3 p., 1 fig., 1957.
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- I. M. Notes 7. Outlying Occurrences of Galena, Sphalerite, and Fluorite in Illinois. 5 p., 1957.
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- *Reprint 1960-I. A Structural Analysis of the Northwestern Illinois Zinc-Lead District. 4 p., 1960.
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No samples contained more than 0.1% U_3O_8 .
- Circ. 203. Uranium in Illinois Black Shales. 15 p., 1 fig., 4 tables, 1955.
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FELDSPAR

- *R. I. 79. Feldspar in Illinois Sands—A Study of Resources. 87 p., 13 figs., 1942.
Deposits, feldspar content, and sieve tests.
- I. M. Notes 1. Potash Feldspar in the Glenwood Formation Near Oregon. p. 1-2, 1954.
- Circ. 391. Feldspar in Illinois Sands: A Further Study. 19 p., 4 figs., 5 tables, 1965.
Iron content and particle size of feldspar.

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- I. M. Notes 1. Potash Feldspar in the Glenwood Formation Near Oregon. p. 1-2, 1954.
- I. M. Notes 6. Trend in Fuel Uses in Selected Industrial Minerals Products. 4 p., 3 tables, 1957.
Trends in cement, glass, and clay products manufacture.
- *I. M. Notes 11. Rare Earth and Trace Element Content of an Unusual Clay on Hicks Dome in Hardin County, Illinois. 5 p., 1 fig., 3 tables, 1960.
- I. M. Notes 19. Binding Materials Used in Making Pellets and Briquets. 46 p., 1964.
A literature review; extensive bibliography.
- Min. Ec. Brief 8. Directory of Illinois Mineral Producers. 10 p., June 1964.
Cement, clay and clay products, fluorspar, lime, lead and zinc, silica sand, and tripoli.
- Circ. 392. Mineral Production in Illinois in 1964. 20 p., 3 figs., 15 tables, 1965.
- Min. Ec. Brief 10. Illinois 1964 Mineral Production by Counties. 7 p., 1 map, 1965.
- Ed. Ser. 8. Industrial Minerals and Metals of Illinois. 48 p., 23 figs., 1965.
A non-technical account of the formation, occurrence, production, and uses of over 22 materials.
- Circ. 209. Unpublished Reports on Open File. II—Industrial Minerals. 8 p., 1956.
Briefly describes reports dating from 1918, available for consultation at the Geological Survey, on the occurrence or uses of ocher, potash shale, silica (tripoli), ganister, novaculite, cement-making materials, fluorspar, limestone, zinc and lead ores, clay, gravel, and organic material in limestones.



